<center>**REMARKS**</center>

Claims 1-9 and 20-35 stand rejected under 35 U.S.C. § 103(a) as unpatentable over "Dynamic Virtual Clusters in a Grid Site Manager" by Chase et al. (Chase) in view of SHARP: An Architecture for Secure Resource Peering" by Fu et al. (Fu).

Amendments to the Claims

Applicants have amended claim 1 with the limitations "…monitor the grid computing system for a predictive trigger event comprising an anticipated change in data flow based on collected historical information…" and "…autonomically regulate the system resource in response to the anticipated change in the data flow recognized trigger event according to one of the plurality of system policies…." The amendments are well supported by the specification on page 12, ¶ 42 and page 21, ¶ 74.

Claims 20, 23, 24, and 30 are similarly amended. Claims 2 and 25 are canceled. Claims 8, 29, 31, 33 are amended to cure informalities and conform with amended predecessor claims.

Response to rejection under 35 U.S.C. § 103

Claims 1-9 and 20-35 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chase in view of Fu. Applicants submit that claims 1, 20, 23, 24, and 30 are patentable over Sharp and Fu in view of the *Graham v. John Deere* standard of patentability. See MPEP § 2141, *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966). Claim 1 is representative of independent claims 20, 23, 24, and 30.

Scope and Contents of the Prior Art

Chase teaches dynamic resource management for clusters in a grid. VCM server invokes resize function every epoch seconds, which requests nodes for queued jobs and relinquishes idle nodes. Chase, § 4.

Fu teaches an Internet scale grid computing network. An agent may oversubscribe resources, but the site authority may probabilistically reject oversubscriptions. Fu, page 136, section 2.2. Services are monitored and resource slices adjusted to meet service quality goals. Fu, page 137, col. 1.

Differences Between the Prior Art and the Claims

Claim 1 as amended includes the limitations:

"…a storage device storing executable code;

a processor executing the executable code, the executable code comprising:

a monitor module configured to **monitor the grid computing system for a predictive trigger event comprising an anticipated change in data flow based on collected historical information**;

a policy module configured to access one of a plurality of system policies, each of the plurality of system policies corresponding to an operational control parameter of a system resource of the grid computing system, wherein the plurality of system policies comprises a system prediction policy; and

a regulation module configured to **autonomically regulate the system resource in response to the anticipated change in the data flow**." Emphasis added.

Independent claims 20, 23, 24, and 30 include similar limitations. Applicants submit that claim 1 is patentably distinguished from the combination of Chase and Fu by claiming "…monitor the grid computing system for a predictive trigger event comprising

an anticipated change in data flow based on collected historical information..." and

"….autonomically regulate the system resource in response to the anticipated change in the data flow…."

The Examiner notes that Fu discloses monitoring guest behavior and adjusting resource slices to meet service quality goals and allowing an agent to oversubscribe resources with the site authority probabilistically rejecting oversubscriptions. Office Action of February 2, 2011 (OA), page 7, lines 9-16; citing Fu, page 137, col. 1; page 136, section 2.2.

In contrast, claim 1 recites monitoring the grid computing system for a predictive trigger event comprising an anticipated change in data flow based on collected historical information. Fu does not disclose a *predictive trigger event comprising an anticipated change in data flow based on collected historical information*. Fu instead discusses monitoring usage and adjusting resource slices for current usage. Fu, page 137, col. 1, "Adaptive provisioning." Fu also teaches probabilistically honoring oversubscribed resource tickets. Fu, page 136, col. 1, section 2.2. However, a probabilistic honoring of oversubscribed resource tickets is not a predictive trigger event, and does not comprise an anticipated change in data flow based on collected historical information.

In addition, Fu does not teach autonomically regulating the system resource in response to the anticipated change in the data flow. The adjustment of resource slices discussed in Fu is not in response to an anticipated change in data flow, but instead is in response to current usage behavior. Fu, page 137, col. 1, "Adaptive provisioning."

Chase also does not disclose monitoring the grid computing system for a predictive trigger event comprising an anticipated change in data flow based on collected

historical information and autonomically regulating the system resource in response to the anticipated change in the data flow.

Applicants therefore submit that the combination of Chase and Fu does not teach the elements "…monitor the grid computing system for a predictive trigger event comprising an anticipated change in data flow based on collected historical information…" and "….autonomically regulate the system resource in response to the anticipated change in the data flow…" recited for claim 1.

Level of Ordinary Skill in the Pertinent Art

Chase and Fu are exemplary of the level of ordinary skill in the art at the time of the present invention. As discussed above, the combination of Chase and Fu do not disclose the elements "…monitor the grid computing system for a predictive trigger event comprising an anticipated change in data flow based on collected historical information…" and "….autonomically regulate the system resource in response to the anticipated change in the data flow…" claimed for claim 1. Applicants therefore submit that the elements of claim 1 are not of the level of ordinary skill in the art at the time of the present invention.

Secondary Considerations

While Applicants respectfully reserve the right to present evidence of commercial success or other secondary factors at a later date if necessary, the discussion above, the fact that no one in the art of autonomic control of grid system resources has taught or disclosed the claimed invention shows at least a long-felt need in the art and unexpected results, indicating non-obviousness.

Because the combination of Chase and Fu do not teach each element of claim 1, because the level of ordinary skill in the art at the time of the present invention did not support the elements of claim 1, and because of the secondary considerations, Applicants submit that the Graham Factor analysis leads to a clear conclusion that claim 1 is non-obvious and allowable. Applicants further submit that independent claims 20, 23, 24, and 30 are non-obvious and allowable for the same reasons, and that claims depending from claims 1, 20, 23, and 24 are allowable as depending from allowable claims.

CONCLUSION

As a result of the presented remarks and amendments, Applicants assert that the application is in condition for prompt allowance. Should additional information be required regarding the traversal of the rejections of the claims enumerated above, Examiner is respectfully asked to notify Applicants of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

Date: April 1, 2011   ___/Brian C. Kunzler/___

8 East Broadway, Suite 600   Brian C. Kunzler
Salt Lake City, Utah 84111   Reg. No. 38,527
(801) 994-4646 voice
(801) 531-1929 fax